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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/345,335	07/01/1999	STEPHANIE A. E. GUERLAIN	H16-25553	1129
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HONEYWELL INTERNATIONAL INC. 101 COLUMBIA ROAD P O BOX 2245 MORRISTOWN, NJ 07962-2245				
			EXAMINER TRAN, MYLINH T	
			ART UNIT 2174	PAPER NUMBER

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/345,335

Applicant(s)

STEPHANIE GUERLAIN

Examin r

Mylinh T Tran

Art Unit

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-- The MAILING DATE f this communicati n appears on th cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-21,23-25 and 27-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-21,23-25 and 27-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's Request for Reconsideration filed 03/15/04 has been entered and carefully considered. However, arguments regarding rejections under U.S.C 103 to claims (1, 3, 7-13, 15-21, 23-25, 27-33 and 35-51) have been found to be persuasive. However, these claims are rejected under the new ground of rejection as set forth below.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7-13, 16-17, 19, 21, 23-25, 27-33, 36-38, 40-41 and 43-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrow et al. [US. 5,375,199].

As to claims 1, 3, 4, 21, 23, 24, 40, 43, 47 and 51, Harrow et al. teaches a first pair of high and low limit elements representative of engineering hard high and low limit values (controlled variables) for the corresponding process variable (figure 13A, values 0 and 80) that define a range in which operator set high and low values are set; a second pair of high and low limit elements representative of operator set high and low limit values elements representative of the operator set high and low limit values for the corresponding process variable which define a range in which the process is free to operate (manipulated variables)

(figure 13A, values 26 and 46). The engineering high and low limit values and the operator set high and low limit values are processed at same range (figure 13A, column 18, lines 15-55); further wherein each of the plurality of graphical devices is displayed in proximity to one of the manipulated and controlled variables (figure 13A-13B, column 18, lines 23-58); and a graphical symbol representative of an optimization characteristic for the corresponding process variable and a graphical user display, a gauge axis and a graphical shape displayed along the gauge axis (figure 13A).

As to claims 5 and 25, Harrow shows the gauge axis representative of engineering and operating hard high and low limit values and "operating high and low limit values are displayed at a shorter length than and between the first pair of parallel lines extending orthogonal to the engineering hard high and low limit values" (figure 13A, low and high limit values (26, 46) would be inside the engineering high and low limits (0, 80).

As to claims 7 and 27, Harrow shows the gauge axis representative of engineering and operating hard high and low limit values along the gauge axis and demonstrates the graphical shape is positioned adjacent one of the first or second pair of high and low limit elements when the value for the corresponding process variable is within a certain-range of the engineering hard high and low limit values or the operator set high and low limit values (figure 13A). It is inherent that if the corresponding process variable is within a certain-range of

the engineering high and low limit values then the graphical shape is positioned adjacent the first pair of high and low limit elements.

As to claims 8 and 28, Harrow et al. also demonstrates the graphical shape (Harrow, figure 13A) is positioned outside of the parallel lines of the second pair of high and low limit elements when the value for the corresponding process variable is outside the high and low process limit values by a predetermined percentage (figure 13A-13B). In Harrow et al. (figure 13A), the graphical shape is positioned outside of the parallel lines when the value for the corresponding process variable is outside the high and low process limit values.

As to claims 9 and 29, Harrow teaches a graphical symbol and representative of an optimization characteristic for the corresponding process variable (column 7, line 55 through column 8, line 5).

As to claims 10, 11, 30, 31, 44, 45, 48 and 49, Harrow et al. also teaches the graphical symbol being representative of a corresponding process variable to be minimized (figure 13A, (0)) and the graphical symbol being representative of a corresponding process variable to be maximized (figure 13A, (80)).

As to claims 12, 32, 46 and 50, Harrow et al. discloses the graphical symbol is representative of a corresponding process variable which is to be held at a resting value (column 18, lines 15-42).

As to claims 13 and 33, Harrow et al. also discloses the at least one graphical device further including a graphical representative of the corresponding to process variable being constrained to set point (column 3, lines 10-35).

As to claims 16, Harrow et al. demonstrates the graphical shape has a color of a set of colors that reflects the state of the current value for the corresponding process variables (figure 13A, the range 26-46 is darker than other area).

As to claims 17 and 37, the claims are analyzed as previously discussed with respect to claim 1.

As to claims 19 and 41, Harrow et al. discloses a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof, wherein each of the manipulated and controlled variables includes a graphical device displayed in proximity thereto (figure 11B, column 18, lines 16-32).

As to claim 36, Harrow et al. also discloses determining a state of a current value for the corresponding process variable and displaying the graphical shape in a color of a set of colors that reflects the determined state for the corresponding variable (figure 13A, the range 26-46 is darker than other area).

As to claim 38, Harrow et al. also demonstrates the process is a continuous multivariable process being performed at a process plant, wherein the continuous multivariable is operable under control of at least manipulated variables and controlled variables of the one or more process variables, and further wherein the method includes: displaying a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof; and displaying a graphical

device in proximity to each of the manipulated variables and controlled variables (column 5, lines 10-36 and column 6, lines 30-65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrow et al.

As to claims 15 and 35, although Harrow et al. discloses the rectangular graphical shape on the gauge axis (figure 13A), they do not explicitly mention about the "graphical shape is a circle positioned along the gauge axis".

However, it is well known in the state of the art that it is seen as an obvious design expedient for having circular shape. The Examiner takes Official Notice. It would have been obvious to one of ordinary skill in the art, having the teachings of Harrow et al. before him, to modify the rectangular shape of Harrow et al. to be circle shape, as made known in the state of the art.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18, 20, 39 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harrow et al. [US. 5,375,199] in view of van Weele [US. 5,631,825].

As to claim 18, the difference between Harrow et al., and the claim is the process being a continuous multivariable process being performed at a process plant. van Weele et al. teaches the process is a continuous multivariable process being performed at a process plant, wherein the continuous multivariable process is operable under control of at least manipulated variables and controllable variables of the one or more process variables (column 14, lines 11-26). It would have been obvious to one of ordinary skill in the art, having the teachings of Harrow et al. before them at the time the invention was made to modify the gauge axis and the graphical shape and the user defining high and low limits of Harrow et al. to include the continuous multivariable process being performed at a process plant of van Weele et al., in order to provide data input means for selecting one of a set of preselected process primitives, and means for indicating a value for the selected process primitive and substituting the input value for that primitive as the value to be monitored and controlled by the PPC, as taught by van Weele et al.

As to claim 20, van Weele et al. demonstrates each graphical device displayed is selectable for navigation to more detailed information for process variable,



corresponding to the selected graphical device, wherein the detail information is displayed on the same screen therewith (column 36, lines 12-19).

As to claim 39, van Weele shows receiving user input to select a displayed graph selected and graphical device, wherein the detailed information is displayed on the same screen with the graphical device (column 40, lines 65-67 and column 41, lines 1-11).

#### ***Allowable Subject Matter***

Claims 14 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims would be allowable because the prior arts fail to teach or suggest the graphical symbol representative of the corresponding process variable being wound up.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3-5, 7-13, 15-17, 21, 23-25, 27-33, 35-37, 40 and 43-51 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claims 19 and 41, Applicant's attention is directed to figure 11B, column 18, lines 16-32 of Harrow et al. for a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof, wherein each of the

manipulated and controlled variables includes a graphical device displayed in proximity thereto.

Regarding claim 38, Applicant's attention is directed to column 5, lines 10-36 and column 6, lines 30-65 for the process being a continuous multivariable process being performed at a process plant, wherein the continuous multivariable is operable under control of at least manipulated variables and controlled variables of the one or more process variables, and further wherein the method includes: displaying a matrix display having the manipulated variables displayed along a first axis thereof and the controlled variables displayed along a second axis thereof; and displaying a graphical device in proximity to each of the manipulated variables and controlled variables

### ***Conclusion***

Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires fax a response, (703) 746-7238, may be used for formal After Final communications, (703) 746-7239 for Official communications, or (703) 746-4395 for Non-Official or draft communications. NOTE, A Request for Continuation (Rule 60 or 62) cannot be faxed.

Please label "PROPOSED" or "DRAFT" for information facsimile communications. For after final responses, please label "AFTER FINAL" or "EXPEDITED PROCEDURE" on the document.

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mylinh Tran whose telephone number is (703) 308-1304. The examiner can normally be reached on Monday-Thursday from 8.00AM to 6.30PM

If attempt to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Kristine Kincaid, can be reached on (703) 308-0640,

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

Mylinh Tran

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